

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
21 July 2005 (21.07.2005)

PCT

(10) International Publication Number
WO 2005/065039 A2

(51) International Patent Classification: **Not classified**

(21) International Application Number:
PCT/IL2005/000037

(22) International Filing Date: 11 January 2005 (11.01.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
159824 12 January 2004 (12.01.2004) IL

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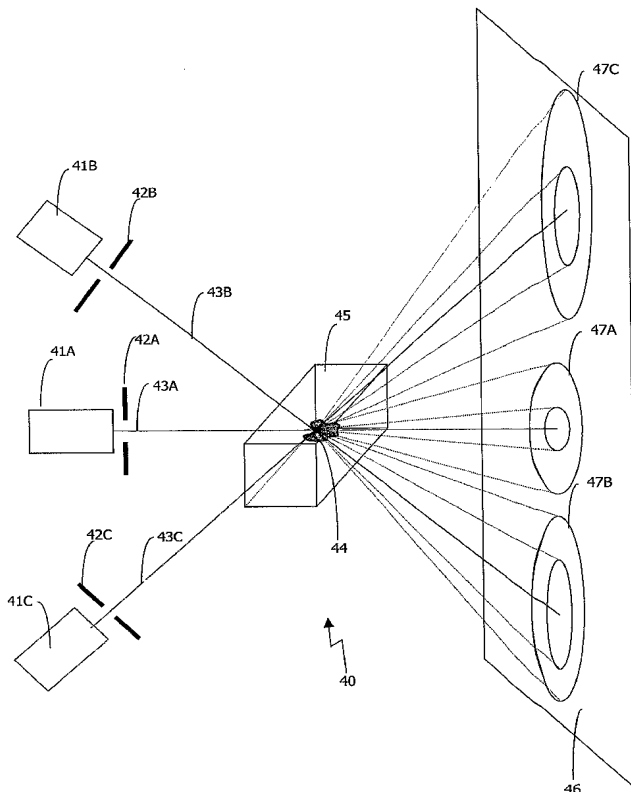
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(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
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TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,

[Continued on next page]

(54) Title: AN X-RAY DIFFRACTION (XRD) MEANS FOR IDENTIFYING THE CONTENT IN A VOLUME OF INTEREST
AND A METHOD THEREOF



(57) Abstract: The present invention discloses an XRD means for identifying the content of a volume of interest (VOI) and a method thereof. A remote XRD means is comprised inter alia of a plurality of X-ray sources targeted towards said VOI; a plurality of X-ray detectors adapted to receive diffracted X-rays; a processor adapted to measure said patterns; a database comprising records of patterns' parameters; and, an alerting means adapted for identifying material as one of said predetermined group. This invention also discloses a method of acquiring XRD image of a material in a VOI, comprised of receiving VOI coordinates; irradiating the material in the VOI; acquiring, extracting and converting of XRD patterns of said VOI to standard powder X-ray diffraction spectrum; matching records in a database for material identification; and alerting when said material is in matching a predetermined record.



GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— *without international search report and to be republished upon receipt of that report*

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